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10/618,522	07/11/2003	Tom Etheridge	200210053-1	5065
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HEWLETT PACKARD COMPANY			TALBOT, BRIAN K	
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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/618,522
Filing Date: July 11, 2003
Appellant(s): ETHERIDGE, TOM

MAILED
OCT 11 2007
GROUP 1700

Gary Oakeson
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed July 13, 2007 appealing from the Office action mailed September 25, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

3,896,252	Tuttle	7-1975
4,285,991	Gedrat et al.	8-1981
4,668,553	Miller	5-1987

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

Claims 9-25 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tuttle (3,896,252) or Gedrat et al. (4,285,991) in combination with Miller (4,668,533).

Tuttle (3,896,252) teaches a process of metal plating on plastics comprising laminating the substrate by contacting with a diaminopropane in a solvent, contacting the treated substrate with a noble metal salt (including palladium) and finally contacting the palladium treated substrate with a reducing agent to form a catalyst layer. The catalyst layer is further plated in an electroless plating process (abstract).

Gedrat et al. (4,285,991) teaches method for producing printed circuits whereby a substrate (plate) is contacted with an activating solution comprising a palladium complex and afterwards the substrate having the palladium complex thereon is treated with a reducing solution. Finally, a metal coating can be formed thereon (col. 4, line 10 – col. 5, line 55)

Tuttle (3,896,252) or Gedrat et al. (4,285,991) fail to teach the process utilized to form electrically conductive pathways as well as applying the palladium and reducing solution by ink-jetting.

Miller (4,668,533) teaches ink jet printing of substrates to form circuits for the manufacturing of printed circuit boards. Ink jetting is utilized to apply sensitizers and activators

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(i.e. catalysts) on the substrates in patterns prior to contacting with electroless plating to form the circuits (abstract and col. 2, line 25 – col. 3, line 45).

Therefore, it would have been obvious for one skilled in the art at the time the invention was made to have modified Tuttle (3,896,252) or Gedrat et al. (4,285,991) process to manufacture circuitry by ink-jet printing as evidenced by Miller (4,668,533) with the expectation of achieving similar success.

It is noted that in Tuttle (3,896,252) a complex is applied separately from the metal as opposed to being applied as a single solution as claimed and done in Gedrat et al. (4,285,991). While the Examiner acknowledges this fact, it is the Examiner's position that one skilled in the art at the time the invention was made would have had a reasonable expectation of achieving similar regardless of the number of steps utilized as long as the process includes steps where a metal and amine complex are combined prior to reducing the metal complex.

With respect to the heating step, it is the Examiner's position that one skilled in the art at the time the invention was made would have had a reasonable expectation of achieving similar success regardless of the application of a heating step during the reducing step. If Applicant disagrees, Applicant is invited to supply a showing of unexpected results regarding the criticality of the claimed heating step. It is noted that the showing should support "unexpected" as the prior art clearly shows, while silent, that the process without a heating step is successful.

(10) Response to Argument

Appellant argued that the references fail when combine have to teach (5) steps required to arrive at the claimed invention and that there is no motivation or reason to combine the references as stated.

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- 1) motivation to combine
- 2) particular class of materials must be chosen
- 3) palladium aliphatic amine complex
- 4) ink-jettable
- 5) heating

1) Appellant argued that both primary references teach uniform coating (blanket coating) and would not combine with an ink-jet printing process to form a pattern coating.

The Examiner disagrees. As noted by Appellant, while Gedrat et al. (4,285,991) teaches uniform coating, Gedrat et al. (4,285,991) also teaches utilizing a masking and etching step to ultimately form a patterned coating. Combining the Gedrat et al. (4,285,991) reference with an ink-jetting reference, Miller (4,668,533), would eliminate these costly steps and increase the production process. Regarding Tuttle (3,896,252), the rejection is based upon the combination with Miller (4,668,533) that teaches ink-jet printing circuitry on plastic or polymer-filled substrates. Hence, the combination of Tuttle (3,896,252) and Miller (4,668,533) would suggest to one skilled in the art that you could use Tuttle (3,896,252) composition and process to form printed circuitry as evidenced by Miller (4,668,533) with a reasonable expectation of achieving similar success as they both are related to forming metal layers on polymer substrates.

2) Appellant argued that one must chose from among many components listed to arrive at the aliphatic amine aminating solution and a separate metal salt, palladium chloride.

The Examiner disagrees. It is noted that in Tuttle (3,896,252) a complex is applied separately from the metal as opposed to being applied as a single solution as claimed and done in Gedrat et al. (4,285,991). While the Examiner acknowledges this fact, it is the Examiner's

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position that one skilled in the art at the time the invention was made would have had a reasonable expectation of achieving similar regardless of the number of steps utilized as long as the process includes steps where a metal and amine complex are combined prior to reducing the metal complex. Furthermore, it has been established that generally, no invention is involved in the broad concept of performing simultaneously operations which have previously been performed in sequence. *In re Tatincloux*, 108 USPQ 125 and the transposition of process steps or the splitting of one step into two, where the processes are substantially identical or equivalent in terms of function, manner and result, was held to be not patentably distinguish the processes.

Ex parte Rubin, 128 USPQ 440 (Bd. Pat. App. 1959)

- 3) Appellant argued that the prior art fails to teach the palladium aliphatic amine complex.

The examiner disagrees. As argued by Appellant, Tuttle (3,896,252) teaches the claimed aliphatic amine complex from a group of compounds. In addition, the aliphatic amine complex claimed is a diaminopropane and is taught by Tuttle (3,896,252). Hence, the aliphatic amine complex is taught even though the two components are applied separately and not as a single composition as they are combined on the substrate prior to contacting with the reducing agent solution. Regarding the Gedrat et al. (4,285,991) reference, Gedrat et al. (4,285,991) teaches a palladium complex and gives examples of palladium sulfate in pyridine. The Examiner has taken the position that one skilled in the art would have had a reasonable expectation of achieving similar success regardless of the type of palladium complex utilized, i.e. a aliphatic amine complex would produce similar results. Appellant has not refuted such a position.

- 4) Appellant argued that the prior art fails to teach the claimed composition being modified to be ink-jettable.

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The Examiner disagrees. The Examiner cited Miller which shows that ink-jetting catalyst/sensitizers/activators is known and that one skilled in the art would have a reasonable expectation of achieving similar success with either Tuttle (3,896,252) or Gedrat et al. (4,285,991) catalyst composition. Furthermore, the compositions are similar for both the prior art and the instant invention and hence would suggest to one skilled in the art at the time the invention was made that the composition would also be successfully utilized in an ink-jetting process.

5) Appellant argued that the prior art fails to teach heating the applied composition.

Regarding the heating step, it the Examiner's position that one skilled in the art at the time the invention was made would have had a reasonable expectation of achieving similar success regardless of the application of a heating step during the reducing step. It is well known in the art that a post-heating step not only can reduce the metal complex to pure metal for improving the catalytic nature of the coating, it can also increase adhesion to the applied substrate. Appellant has not refuted the Examiner's position with a showing of unexpected results regarding the criticality of the claimed heating step.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

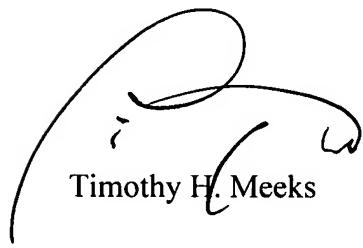
For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



Brian K. Talbot

Conferees:


Timothy H. Meeks
Kathryn Gorgos